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# THE POTTERY OF THE AMERICAN INDIANS

By W. J. HOFFMAN, M. D.

*Illustrated from specimens in the National Museum.*

## IV.—DEVELOPMENT OF FORMS—BOWLS AND VASES

THE ruins and cliff-houses of Arizona and New Mexico, as well as the tumuli of southern Utah and the Mississippi valley, have furnished vast quantities of ceramic remains, among which there is a noticeable scarcity of flat vessels and long-necked jars or bottles. It is rather interesting to note, also, that within the



FIG. 78. BOWL-FORMS SUGGESTED BY THE GOURD

area of the "ancient" pueblos there appears to be a total absence of vessels with feet or legs, or like projections; and, likewise, a scarcity of forms imitating living objects—which are now so common among the modern inhabitants of the same region—attributable, perhaps, to a tardy development of taste in modeling. As I have remarked in a previous paper of this series, the vegetable world appears to have furnished many originals, as illustrated in the forms derived from adaptations of the squash and gourd.

It has been observed that if the body of the common long-necked gourd were cut through transversely, the extreme, or lower, end would furnish the type of form for the cup or bowl; and if the neck only were removed, or the round gourd simply perforated, the result would be somewhat similar to the shapes in figure 78. If the neck of the gourd were cut, as in figure 79, a plain lip or rim would result, giving rise to forms of a series embracing vases and ollas or pots.



FIG. 79. FURTHER FORMS FROM THE GOURD

A heart-shaped bowl, suggested by the original model shown in figure 78, is here reproduced in figure 80, being a superior specimen from the valley of the Little Colorado, Arizona. Another from the same province, with the top a little



FIG. 80. A HEART-SHAPED BOWL: ARIZONA

more depressed, is represented in figure 81, an example giving evidence of skill and good taste seldom perceived in vessels from this locality. A globular vase, presenting many of the features shown in preceding figures, is illustrated herewith in figure 82. The mouth, although not depressed, is quite large, while upon either side is a node vertically perforated, to serve as a handle, or rather for suspension.

A bowl or vase of similar type is shown in figure 83, a specimen of red polished ware from Chiriqui. The



FIG. 81. A BOWL: TUSAYAN

mouth has been turned sharply upward, indicating a slight advance both in form and gracefulness of shape. The shoulder is still depressed, as in the above specimens from the Province of Tusayan; but in figure 84 will be observed a nearer approach to the 'Tusayan type, having both rim and nodes, the latter not for the attachment of a cord, as they are imperforate, but to serve as ornaments. The bowl is also rather heart-shaped, as in several of the preceding specimens.

From the pueblo of Cochiti we have a vessel (fig. 85), the bowl of which is similar to some of the preceding examples, but to which is added a hollow handle, no doubt suggested by the neck of its vegetable prototype. This vessel appears also as a connecting link between the bowl and the dipper, examples of the latter of which, exceedingly numerous and varied in form, are to be seen in every pueblo household. The handles are frequently made so as to simulate various animate or even mythical forms, this deviation from the plain gourd-like handle being perceptible even in the last-named specimen.

Although most of the pueblo vases and water-vessels have much resemblance in the general contour of the bowl, Zuñi furnishes the greatest variation in the matter of ornamentation. The shape of these vases is similar to that of the Chiriqui vessels, a type of which is represented in figure 84, the large rimless mouth being conspicuous, but instead of a slightly heart-shaped base there is often a tendency to a flat or depressed one, as in figure 85. This results from the method of manufacture. Vessels having a flat or round bottom are characteristic of older forms, while the more recent and all modern types—ac-



FIG. 82. A BOWL WITH NODES: TUSAYAN

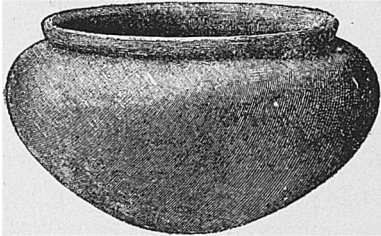


FIG. 83. A POLISHED RED VASE: CHIRIQUI

According to information given to me by Frank H. Cushing—are concave or hollowed at the base to facilitate balancing on the head. Figure 86 illustrates the concavity, in the bottom, and also a sectional view of the olla or pot; the annular ring or mat used for carrying the vessel comfortably on the head, and the manner of this method of transportation are shown in figures 88 and 88a.

In another Zuñi vase (fig. 89), the rim has a more pronounced tendency toward an outward-curving lip, as is shown in a very grace-



FIG. 84. A VASE FROM CHIRIQUI



FIG. 85. A WATER-VESSEL: COCHITI, N. M.

ful vase from a mound in Wisconsin, represented in figure 90.

less as aids to suspension or transportation."

In figure 92 the four loops or handles are complete, a matter of frequent occurrence in the older types of the ceramic remains of ancient Greece and Asia Minor; while in some examples there remain only suggestions of handles, in low relief, which, in other specimens, are indicated by ornamental incisions as in figures 93 and 95. The pottery from Central America is conspicuous for its more graceful shape and the greater amount of ornamentation. Bowls and vases, in all essential characteristics similar to those from the United States, are frequently made more serviceable, as well as more artistic, by the addition of feet or legs, and by the development of nodes upon the shoulder or rim into graceful or ornamented handles.

Recurring again to vases having large mouths and slightly recurving lips, with projecting nodes upon the shoulder, figure 94 illustrates one in which the nodes become handles and represent animals' heads, which are hollow and contain pebbles of clay. A slight increase in the development of the handles is shown in figure 97, also from Chiriqui. In this case the handles are attached horizontally. The enlargement of a simple form of a pair of handles, upon either side, connecting the winged lips with the shoulder of the bowl, is represented in a graceful form, as shown in figure 99, resembling the types of Greece and Cyprus. The fracture of a single handle would seem readily to have



FIG. 87. A ZUNI WATER-JAR

suggested the prototype of the pitcher.

A pair of vertical handles extending on either side from the shoulder to the winged lip, is represented in figure 98, and foretells the advancement toward a type, the completed form of which appears in figure 96. The latter furthermore suggests connection with

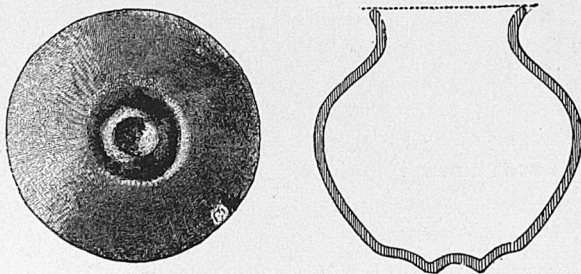


FIG. 86. A BOTTOM, AND A SECTION, OF AN OLLA





FIG. 88. CARRYING A LARGE BOWL

the clay baskets and handled bowls of Zuñi, to which a descriptive reference will be made farther on.

It has been suggested, also, that the feet or legs at the base of bowls, trays or vases, were superadded features acquired, perhaps, rather recently. In Chiriqui, however, we have evidence that such additions were common in prehistoric times, and this may be said to be true, also, of the pottery of Mexico. A small tripod cup from Chiriqui is represented in figure 102; while in figure 101 the vase is both handled and adorned with feet, presenting an exceedingly interesting comparison with a similar tripod vase from ancient Troy, reproduced herewith in figure 100, from Schliemann's "Ilios."

Because of the frequent reference to the province of Chiriqui, and the highly artistic ceramic remains obtained there, it is deemed eminently appropriate to digress for a moment in order to make note of that interesting region which has, until quite recently, remained almost unknown to the world at large. As stated in a previous paper, this province is politically a part of South America, though geographically it belongs to the North American continent, lying immediately north of the Isthmus of Panama and touching the southern boundary of Costa Rica.

The earliest published accounts are those of the Spanish conquerors, who traversed the country a

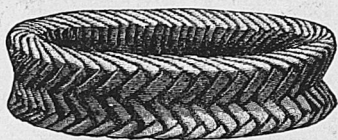


FIG. 88a. A HEAD-MAT



FIG. 89. A ZUNI WATER-VASE

number of times; but it was reserved for the era of railway and canal construction before accurate reports, concerning the geography and people, were made public.

The present inhabitants are chiefly Indians and natives of mixed blood, whose chief subsistence consists of the natural products of the country. They are believed to possess no trustworthy traditions concerning the ancient inhabitants—among Indians generally such traditions are of little, if any, historic value—and they manifest no interest in the ancient burial places, as they might do, perhaps, were they the direct descendants of those whose pottery and metallic ornaments, are now so eagerly sought after by museums.



FIG. 90. A VASE FROM A WISCONSIN MOUND



FIG. 91. AN ANCIENT VASE: TENNESSEE

as they hang on their breasts and other parts, and other things, all of them amounting to ten thousand pesos of fine gold." (Herrera: Hist. of America, vi. 369.) Pizarro, and others, plundered the natives wherever possible, and the reports of this wealth gave rise to all kinds of reports. The Atlantic coast-portion of Chiriqui and Veragua was named by Columbus Castillo del Oro, because of the



FIG. 93. A POT: ARKANSAS

abundance of rich objects worn by its natives; and it is said that Costa Rica received its name in like manner; and also that tales of the mythical "El Dorado," traditionally located in the interior of the South American Continent, originated from the same circumstance.

It may be added that the metal-work of ancient Chiriqui consists to great extent, of effigies of the human form, artistically executed and finished with a delicate tracery of wire-work, resembling, to some extent, Etruscan jewelry:

The cemeteries are seldom found near the sea, but occur throughout the river-valleys, plateaus, and in the forests. They are numerous and usually of small extent, though the one from which was obtained much of the fine ware now accessible for examination in the United States National Museum, extended over an area of about twelve acres. The graves are diverse in form and depth, and are variously classified by different modern explorers. The preservation of much of the pottery



FIG. 94. ANIMAL-HEAD HANDLES: CHIRIQUI

The highest state of culture there may have been contemporaneous with that of the metal-workers of New Grenada, upon the one hand, and with the manufacturers of pottery of Costa Rica, on the other, which period, without doubt, antedated the time of the Spanish conquest. Balboa, in 1510, obtained at the capture of the Indian village of Darien "plates of gold such



FIG. 92. A POT FROM AN ALABAMA GRAVE

of the mythical "El Dorado," traditionally located in the interior of the South American Continent, originated from the same circumstance.



FIG. 95. A POT: PECAN POINT, ARKANSAS

is due to the fact that the rectangular excavations, constituting the graves, have the walls lined or built up with stones, while in each corner is a pillar, the four supporting a large flagstone, thus leaving a protected cavern, while the whole was buried under a mound of stones and earth. One variety of such quadrangular graves measures as much as six feet in depth, and from four to six feet in horizontal dimensions. In another

variety, however, the grave-pit was only two feet deep. There is still another form usually designated as a compound cist. In one of these, the upper portion was in all respects similar to the quadrangular grave, but from the middle of the cavern there descended a shaft to the depth of almost five feet, where the chamber was enlarged so as to measure from six to nine

feet in horizontal dimensions. Fragments of pottery strew the bottom of such graves, but the entire cavity is now filled with a debris of earth and stones.

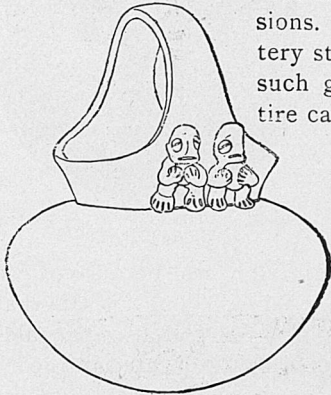


FIG. 93. AN ARCHED HANDLE: CHIRIQUI

graves, there was apparently no regularity observed, since vessels are found in almost every position, and they appear to have been deposited carelessly, sometimes even during the process of filling in the earth, and sometimes placed at the sides of the cavern in



FIG. 99. A BROAD HANDLED VASE: CHIRIQUI



FIG. 97. HORIZONTAL HANDLES: CHIRIQUI

Human remains are conspicuously absent, though from the location of the ornaments believed to have adorned the body of the buried person, at the time of his sepulture, the custom of burial may have been the same as with other modern tribes. Cremation has been suggested to account for the almost general absence of bones, but that custom is unknown among the present or historic tribes of this region.

Respecting the deposition of pottery in these

niches made by removing wall-  
pebbles.



FIG. 98. A CHIRIQUI VASE

Although there are no surface-indications of the presence of these graves, one familiar with searching for them experiences but little difficulty in finding them. A light iron rod is carried and frequently thrust into the loose soil, until it strikes stones and boulders covering the flagstone of some grave, which has been concealed by the soil during the lapse of centuries.

The Spaniards found the people of Chiriqui expert mechanics and metallurgists,

making articles of gold, and of alloys of gold with both tin and copper; they were also familiar with the use of the blowpipe. Some of the human effigies are plated, but the authenticity of the gilding cannot be satisfactorily or finally settled until further scientific and responsible examinations shall have been conducted toward that end.

One of the best arguments in favor of the native origin of the forms and decorations found there, is that they are foreign to the European types of that and anterior dates. The general expression and ensemble of these metallic wares, are reproduced in pottery, though the latter is necessarily larger and less delicate. Animate forms are observed in numerous examples presented in connection with the ceramic products of Chiriqui, some of which have been reproduced in previous papers in this series, while others are yet to receive attention.

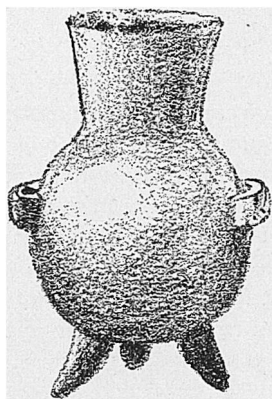


FIG. 100. A TROJAN TRIPOD VASE

Interesting variants of the preceding, illustrate the development of the form of the vase, mouth and feet (figs. 103 and 104); and another noteworthy specimen, also from Chiriqui, is shown in figure 106, where the legs are hollow and the ornamentation is in white paint. The flaring rim is rather unusual, though in the following illustration (fig. 105), it is recurved, while the bowl is furthermore sustained by three grotesque figures. A globular vase, supported by three legs formed of bands, is given under figure 104, because of its resemblance to a type (fig. 100)

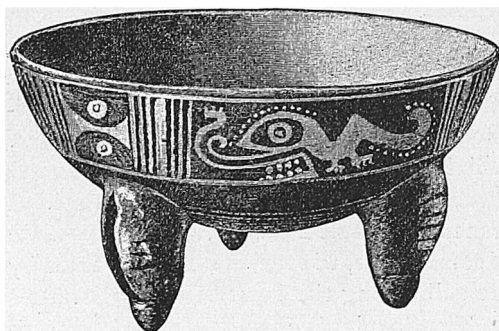


FIG. 102. A TRIPOD CUP: CHIRIQUI



FIG. 101. A LARGE VASE: CHIRIQUI

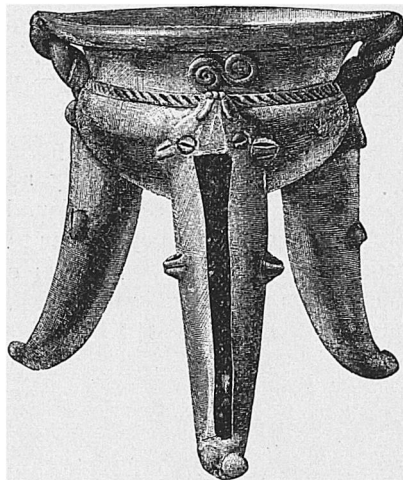
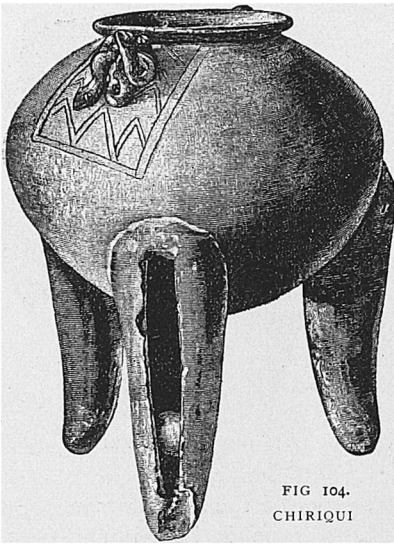


FIG. 103. A TRIPOD VASE: CHIRIQUI

exhumed from tumuli in Greece and Asia Minor. The four feet of the shallow vase from Chiriqui (fig. 107) form an unusual feature,—so much so that it has been thought worth while to give also a picture (fig. 110) of a Zuñi cooking-vessel with four tall feet, since it is believed to be the only one in the whole National Museum, whose pottery collections comprise many thousands of entries. The necessity for secure supports, in this instance, is obvious.



FIG. 104.  
CHIRIQUI

lines and dots. This is perhaps one of the most remarkable vases ever obtained in Chiriqui,—a region which has furnished an extensive collection of beautiful specimens to the Smithsonian Institution.



FIG. 105. CHIRIQUI



FIG. 106. CHIRIQUI

point, to be antagonistic to one another. Furthermore, in order to imitate as nearly as possible the paste employed by the aboriginal potters, shreds of ancient pottery are pulverized and mixed with fresh materials in the composition of fraudulent wares; and the forms and decorations of the ancient articles are also closely followed.

Much of the "pueblo" pottery from the valley of the Rio Grande in New

One of the most interesting four-footed vessels of this type is a vase from Chiriqui (fig. 108) which is sub-cubical in form, with a high funnel-shaped rim; and is ornamented at the ends by two grotesque human figures, the legs and feet of which act as supports. The modeling is well done and the somber, yellowish-gray, tinted surface is highly polished and is relieved by black and red

It is a well-known fact that a considerable traffic has been established in fraudulent archaeological specimens, particularly in fanciful types of pottery alleged to have been recovered in Mexico and Central America; and it is astonishing to learn with what difficulty and patience some of the imitators labor in producing so-called "mound" pottery,—an illicit industry due to the interest aroused by valuable finds of antiquities in several states of the Mississippi valley. Fictitious pottery from the regions south of the Mexican boundary are often *overdone*, in both ornamentation and the grouping together of mythical and organic forms which are known, from a cult-stand-

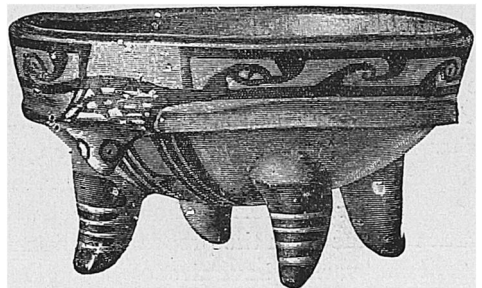


FIG. 107. A FOUR-LEGGED SHALLOW VASE: CHIRIQUI

Mexico, is not made by the Indians, but by Mexicans who are intermarried with Indians, or who have settled there for the purpose of supplying the demand of tourists, from whom exorbitant prices are often obtained for exceedingly poor objects.

Before leaving the subject of wide-mouthed jars or vases, attention may be called to a type of vessel rarely approached in form in America, but which is common in Asia Minor and along the northern



FIG. 109. AN ANCIENT BRITISH BURIAL-VASE

shores of the Mediterranean. This type is best illustrated by the amphora,—a graceful, elongated vessel, usually terminating below in a sharp projection, enabling it to be thrust in the sand until it will stand upright; and which was used for storing wine, oil, and other substances. The nearest approach in form, in America, is found in the basket-work of some of the western Indians, an example of which was given in the first chapter of this series, fig. 2. This type appears



FIG. 108. A GROTESQUE VASE: CHIRIQUI

to serve as the prototype of the narrow-necked urns, vases and possibly of the pitchers.

Wide-mouthed vases, nearly resembling the ordinary red earthen flower-pot, were used by nearly all primitive peoples as cinerary or burial urns, the forms being almost identical, whether from the barrows of Scotland; the mounds of America; the graves of the ancient Peruvians; or the buried cities of Asia Minor. An ancient British specimen is shown herewith in fig. 109. Another type, used for the same purpose, has a body rather more globular in form, though the wide mouth remains as in the preceding; illustrations of this variety have already been given.

(To be continued)

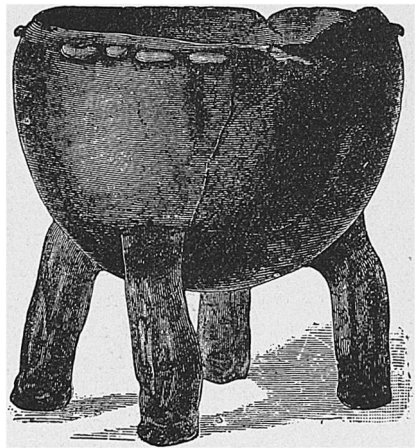


FIG. 110. A ZUNI COOKING-POT





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TYPES FROM THE STAGE. 1—JENNIE GOLDTHWAITE



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TYPES FROM THE STAGE. III—KATHERINE GRAY





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TYPES FROM THE STAGE. IV—ISABEL URQUHART